

Governor's STEM Academy Brief



Office of Career and Technical Education Services

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The purpose of this monthly brief is to provide information, resources, and a networking vehicle to support the STEM (science, technology, engineering, and mathematics) Academies in Virginia.

GOVERNOR'S STEM ACADEMIES SPOTLIGHT

The Governor's STEM Academy for Engineering, Marketing, and Information Technology Studies at Landstown High School, Virginia Beach City Public Schools, is using a \$7,000 grant from Toshiba to purchase a web-based software program that allows users to experience the 3D concepts behind building and testing bridges, making fuel-efficient cars, designing faster dragsters, and building more efficient planes. In addition, a \$1,000 GEICO grant has enabled the Academy to create a third FIRST Tech Challenge team that will be visiting elementary schools to provide robotics demonstrations and mentor students in their STEM robotics clubs and FIRST Lego League competitions.

CAREER LINKS

FOCUS ON GOVERNMENT AND PUBLIC ADMINISTRATION CAREER CLUSTER

- Visit the [Commonwealth of Virginia](#)'s official site for information about state government's organization and services, as well as employment opportunities and benefits.
- The U. S. Department of State's [Discover Diplomacy](#) allows students and educators to research career opportunities through links such as [Student Programs](#), [Virtual Student Foreign Service](#), and [Department of State Careers](#).
- [USAJobs](#) offers a job search feature for students and recent graduates considering careers in the federal workforce.
- See [Careers in Government](#) for a job seeker service, media resources, salary calculators, career tests, and tips for interviews and résumés.
- [USA.gov](#) provides links to U.S. government information and services by topic.
- The U.S. Central Intelligence Agency's site offers operation history, career information, and other educational resources for [students](#) and [teachers](#).
- Sites for exploring military careers include [Today's Military](#), [Careers in the Military](#), and the official sites for the U.S. armed forces: [U.S. Navy](#), [U.S. Army](#), [U.S. Marine Corps](#), [U.S. Air Force](#), and [U.S. Coast Guard](#).
- The IRS offers pre-college students career tools and activities through its [Count on Us](#) page.
- The importance of STEM-related knowledge and skills in government careers is evident on many federal Web sites (e.g., [NASA](#), [NOAA](#), [US Army Corps of Engineers](#), [USDA](#), [National Park Service](#), [Environmental Protection Agency](#), [National Institutes of Health](#), [Data.gov](#), [Free.ed.gov](#)).
- [American Planning Association](#) features career development and education links.
- [Junior Achievement](#) invites visitors to explore a variety of careers within the Government and Public Administration Career Cluster.

GRANTS AND OPPORTUNITIES

- [The Virginia Space Grant Consortium](#) provides a free service to college students seeking internships in the fields of science, technology, engineering and mathematics. The program allows a student to submit a general application to many employers or to streamline choices to particular employers or regions in the state.
- Central Virginia Community College, the University of Virginia and Lynchburg-area employers have teamed up for a program, [Engineers Produced in Virginia](#), to provide opportunities for people pursuing regional jobs in engineering. The program is gaining traction in Virginia, involving 17 community colleges.
- ACTE has partnered with SmartBrief to launch STEM Career SmartBrief, a daily e-mail newsletter specifically designed for career and technical educators and administrators. The brief is free to ACTE members—you may [sign up today](#).
- In partnership with the University of Virginia, and with funding from the Commonwealth, Virginia Space Grant Consortium will pilot a transformative, on-campus summer STEM experience in July of 2013. [The Building Leaders for Advancing Science and Technology \(BLAST\) program](#) will provide hands-on experiences for high school students which can have a positive influence on career choices early enough in their education to influence the coursework they choose in preparation for college education. BLAST will feature a three-day residential experience at UVA and will target rising high school freshmen and sophomore students who have an underlying aptitude for STEM academics, but have not yet discovered the excitement of STEM.

INSTRUCTIONAL STRATEGIES

- [iCivics](#) presents lesson plans on the structures, functions, and officials of [State and Local Government](#), as well as links to other government-related units.
- [The Glossary of Instructional Strategies](#) lists, describes, and gives examples of instructional strategies for different subjects and grade levels.
- [CriticalThinking.net](#) provides resources for teachers, parents, institutions, students, employers, and government workers.
- The U.S. Census Bureau provides a downloadable [teaching guide](#) with lessons and activities to help students in grades 9-12 understand the importance of census data in government planning.
- [Lessons on Local Government](#) from the Colorado Municipal League and Special District Association and [Lesson Plans Index](#) from the Maine Municipal Association and Maine Council for the Social Studies are useful models for teachers wishing to develop classroom activities for their own localities.
- The National League of Cities site includes [Cities 101](#) and [Tools and Resources](#), helpful resources for introducing students to municipal organization and the challenges facing city government leaders.
- [Computer Science Unplugged](#) supports computer science education and offers free help to parents trying to explain computer concepts to their children.
- The National Education Association offers a [Guide to Teaching Online Courses](#) for secondary school education.
- Be sure to check out ITEEA's latest [STEM Education Product Guide](#) - filled with publications and curriculum materials from the latest ebD offerings to standards to journal offerings.

For more information, contact Judith Sams, editor, Office of Career and Technical Education Services, at cte@doe.virginia.gov or by telephone at 804-225-2052.